

I. *An Account of a Shock of an Earthquake felt in Suffex on the 25th of October, Anno 1734. communicated to the Royal Society by his Grace CHARLES Duke of RICHMOND and LENOX, &c. F. R. S. And of another in Northamptonshire, in October, Anno 1731, by the Revd. Mr. Wasse.*

I. *A Letter from his Grace the Duke of Richmond to Sir HANS SLOANE, Bart. President of the Royal Society.*

London, Thursday Oct. 31, 1734.

S I R,

BEING just arrived from *Suffex*, where I heard a very extraordinary Account of an Earthquake that happened there on *Friday* the 25th Instant, between Three and Four in the Morning, I take this first Opportunity of laying before you and the *Royal Society*, what Accounts I was able to collect during my Stay there. I know most of the People that have signed the inclosed Papers, to be Persons of Veracity: And what confirms me in my Opinion that there really was an Earthquake, is, that almost every body agree in the same Description, as to the Sensation, the Hour of its happening, and the perfect Calm that was at that Time. I observe the Shock was vast-

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ly more felt towards the Sea-side, as at *Shoreham*, *Tarring*, *Goreing*, *Arundel*, and *Havant*. At my House of *Goodwood*, which is near three Miles North of *Chichester*, and about Seven from the Sea, it was not so perceivable as at *Chichester*, and where it was still less so than by the Sea-side. I do not hear as yet that there was the least Touch of it in any Parts of the Vale on the North Side of the Downs, which for the most part run East and West. I think, what Dr. *Bayley* of *Havant* says of the different Motions of the Beds, according to the different Situations they were in, is very well worth observing. This Gentleman is a Doctor of Physick, and a very curious Man. I could have got above fifty more Accounts from the several Places I have mentioned ; but as they all tend to the same Purport, I thought what I had already collected sufficient. I am, Sir,

*Your obedient,
Humble Servant,*

RICHMOND and LENOX.

2. *A Narrative of the same Earthquake by
Edward Bayley, M. D.*

Havant, Octob. 25, 1734.

Between three and four o'Clock in the Morning, an Earthquake was felt here: The Shock was so considerable as to be observed by one or other in most Houses of the Town. I happened to be awake at that Time, and perceived the Bed shake under me
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with a quick tremulous Motion, which continued about two or three Seconds, then ceased; and after a very short Intermission was repeated in the same Manner, and lasted about the same Space of Time, as near as I could guess. I was at first much surprized at such an unusual Phænomenon; but upon a little Recollection, concluded it must be occasioned by an Earthquake, and was soon confirmed in my Conjecture by the concurrent Observations of my Neighbours, and afterwards by Accounts of the same from many other Places; in some of which it seems to have been more violent than here. Several Persons in this Place say they not only perceived the shaking of their Beds, but also the rocking of their Houses, together with a rumbling Noise of Drawers and the like moveable Goods in their Chambers and other Rooms. A learned and ingenious Gentleman in this Town informs me, that the Motion of his Bed appeared to him like the tossing of a Vessel when it crosses over a Wave, the Head and Feet thereof rising and falling alternately several times; whereas mine seemed rather to rock from Side to Side: But these contrary Motions of the two Beds are easily accounted for, by considering the different Positions of them, my Friend's standing directly East and West, and mine North and South: For supposing the undulatory Motion which the Earth might have at that Time was propagated from East to West, the same kind of Motion which caused his Bed to rise up and down longways, must make mine rock from Side to Side; as may be observed in two Vessels sailing in contrary Directions on the same Waves of the Sea, that which crosses the Waves at Right Angles being tossed up and down endways, while the other moving in a

Line parallel with the Waves, will be rocked from Side to Side. What makes me the more inclined to think the progressive Motion of this Earthquake to have been from East to West, is, because it appears from the best Accounts I have yet had of it, that it was observed sooner East than Westward, and likewise extended further from East to West than North and South.

It may not be amiss to take Notice of some remarkable Phenomena which happened before and after, as well as some other Circumstances which immediately attended this Earthquake, most of them agreeing with those Signs which have been observed by the learned to precede or accompany former Earthquakes in these and other parts of the World. It is observable, that we have had of late more Rain and Wind for several Months successively, than for many Years past; especially from the Beginning to the Middle of this Month, about which Time it cleared up, and the Weather became suddenly very cold with frosty Mornings, the Wind blowing generally pretty hard from N. W. On *Wednesday* the 23d, the Cold abated considerably; it was cloudy, but we had no Rain that Day. The 24th was very calm all Day; it rained most part of the Afternoon, though the Mercury stood at $30\frac{2}{10}$. It continued very calm all Night, and rained hard for some time before and after the Earthquake happened; but it soon cleared up, and we had a strong Gale of Wind, which rose within half an Hour, or, as some say, within a Quarter, afterwards: It continued blowing hard all the Forenoon. At four o'Clock in the Morning I observed the Mercury continued at 30
Inches

Inches $\frac{2}{10}$, the Spirit of Wine at $55 \frac{5}{10}$; having risen about five Degrees since the late cold Weather.

N. B. My Barometer and Thermometer are both in one Frame, made by Mr. *Hawksbee*.

Octob. 29, 1734.

Edward Bayley.

The Circumstances related by his Grace, and by Dr. *Bayley*, are backed by the united Testimonies of several; many of whom are known to his Grace to be Persons of Veracity, and whom he procured to sign Certificates of what they observed concerning this Accident at *Chichester* and other Places. It is unnecessary to trouble the Reader with each Certificate; the mentioning the Names of those who have subscribed them may suffice.

John Fletcher, Andrew and Sarah Adaire, Jane Johnson, Martha Freeland, Owen Apps, Sarah Bryers.

Sarah Tutte, and her Children *Eleanor, Jane* and *Sarah*.

John Costellow, John Freeland, Matthew Fathers. John and Sarah Bryers, John Long.

Thomas Turgis, Richard Silverlock: All of the City of *Chichester*.

Philip Boisdaune, Esq; of the Parish of *Funtington* in the County of *Suffex*.

This last-mentioned Gentleman, and the aforefaid Persons, dwelling in the City of *Chichester*, all agree that there was a manifest Shock of an Earthquake felt on *October 25*, about a Quarter before Four in the Morning, which lasted by fits some few Seconds, about a quarter of a Minute, or while one might tell

tell Twenty, with a Motion sensibly flow : For most of the Accounts concur in this Particular, that the Chairs, Wainscot, Doors, Chests of Drawers, and other Moveables, were heard rattling ; and one, that a Bell rung of itself just before they felt the heaving of their Beds ; and that there was no Wind stirring at that Time, but that it rained, and the Wind rose soon after.

The Revd Mr. *Richard Green*, Prebendary of *Chichester*, and Rector of *Merston*, in the County of *Sussex*, had Informations of the same Tremblings, attended with the same Circumstances, being felt at *Shoreham, Goreing, Tarring, Findon, Arundel Castle*, and *Merston*.

John Shaw, Thomas Dagly, and *John Towner*, all Servants to the Duke of *Richmond*, at his Seat called *Goodwood*, felt the same.

Mr. *John Jenkins*, Riding Officer of the Customs, in the Parish of *West-Wittering*, near *Braglesham-Bay*, in the County of *Sussex*, described the Shock after the same Manner : And he adds further, that within half a quarter of a Mile of his House, a young Man, of about 18 or 20 Years old, having been at the same Time to fetch up a Team of Horses from Grass, the Horses were so sensible of something more than ordinary, that they trampled, and seemed very much affrighted, as they were coming home.

3. *Of a Shock of an Earthquake felt in Northamptonshire, in October 1731.*

TO the foregoing Accounts of an Earthquake felt in *Suffex*, it is thought not improper to subjoin, from the Registers of the *Royal Society*, the following Intimation from the Rev^d Mr. *Jos. Wasse*, Rector of *Aynho* in *Northamptonshire*, of “ a Shock “ of an Earthquake felt there on *Sunday, Oct. 10.* “ about four o’Clock in the Morning, *Anno 1731.* “ This Gentleman saith, that his Windows rattled, as “ if somebody had been dancing over-head. The “ Concussion lasted about a Minute; others thought “ it lasted about two Minutes. It alarmed the neighbouring Villages, *Bloxham*, four Miles South-West “ from *Anyho*; *Barford*, five; *Banbury*, four West; “ *Adderbury*, a Mile West; *Crowton*, a Mile to the “ East; and *Charlton*, as much to the North. There “ was no Notice of its Progress South or South-East. “ About a Minute after, some of the Town of *Ayn-* “ *ho* saw a great Flash of Lightening. In the Morn- “ ing the Sky looked of a Land-colour. It was said “ that there was a former Shock felt upon *Oct. 8.* “ about Three in the Morning; and that the latter “ was preceded by a Noise like distant Thunder.”

It is remarkable, that this Shock was perceived to extend more from East to West, than from North to South; which Particular was likewise observed in the last Shock felt in *Suffex 1734.*